

FINDING OF NO SIGNIFICANT IMPACT

Emory Peak Trail Realignment

Big Bend National Park

Background

In compliance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4347, as amended) the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine various alternatives and environmental impacts associated with the proposal to realign the Emory Peak Trail in the High Chisos Mountain Trail System at Big Bend National Park (Park). The project will construct 1.19 miles (1.92 kilometers) of new trail to bypass a 0.53 mile (0.85 kilometer) segment of the existing trail, which is poorly designed and heavily eroded. The project area is located approximately 3.5 miles (5.6 kilometers) south of the Chisos Basin developed area, beginning at the Pinnacles Pass area where the Emory Peak Trail meets the Pinnacles Trail.

The proposed realignment of the Emory Peak trail is needed to address visitor safety risks, resource damage, and an unsustainable trail design. From its junction with the Pinnacles Peak Trail, approximately 0.53 mile (0.85 kilometer) of the existing 0.90 mile (1.45 kilometer) long Emory Peak Trail is poorly designed, climbing straight up drainages and ridge lines. The trail has become heavily damaged by ongoing erosion, leading to resource damage and unsafe hiking conditions.

Selection of the Preferred Alternative

The EA evaluated two alternatives – A “No Action Alternative” and the “Proposed Action” to realign the Emory Peak Trail, which is NPS’s “Preferred Alternative.” NPS’s Preferred Alternative best meets the purpose and need for the project as well as the project objectives to: 1) Improve safety for visitors and staff who use the Emory Peak Trail; 2) Provide a better visitor experience on the Emory Peak Trail; 3) Minimize impacts to park resources; and 4) Provide a sustainable design for the trail that will make its long-term maintenance practical.

The Preferred Alternative will include two main components: 1) construction of a realignment to bypass a segment of the existing Emory Peak Trail; and 2) rehabilitation of the existing trail segment to be bypassed. The existing trail measures up to 6 feet wide and climbs grades of up to 40% (22 degree slope) through drainages and ridgelines, which has led to extensive erosion. The new trail segment will be 1.5-2 feet wide and will follow natural terrain contours to create a trail with an average 7% grade (4 degree slope). Construction methods for the new trail alignment will follow established standards for sustainable trail design. Although it is not anticipated that the project will require the use of tools other than hand tools, unforeseen trail design obstacles may require the use of blasting and/or motorized equipment. To facilitate mitigation measures outlined in the EA, the Park’s Trails Supervisor will coordinate with the Park’s Science and Resources Division before using tools other than hand tools. Materials to be used to gain elevation and prevent erosion on the new trail alignment will be local natural materials from non-pristine sources and may include rock, soil, and juniper logs. Rock features may include retaining walls, checks, and water bars. To ensure that the new trail alignment is consistent with natural surroundings, trail features will be used only where needed to maintain a sustainable design and to protect resources.

All segments of the existing trail that will be bypassed by the new trail alignment will no longer be used and they will be fully rehabilitated with local materials from non-pristine sources. Rehabilitation will include setting erosion checks, recontouring to natural slope, revegetating with native seeds, and stabilizing the rehabilitated areas with erosion control methods such as jute matting. The Park’s Trails Supervisor will coordinate with the Park’s Senior Botanist in revegetation efforts.

Alternatives Considered

A total of three alternatives were considered for this project, including the two that are analyzed in the EA. Of these, one of the action alternatives – the alternative to close the Emory Peak Trail – was dismissed from further consideration, because it was not prudent or feasible. The two alternatives that are evaluated in the EA include the No Action Alternative and the Preferred Alternative. Under the No Action Alternative, there will be no change in the maintenance and management of the existing trail, and it will likely continue to degrade, because it is unsustainable and its maintenance is impractical. Under the Preferred Alternative, the trail will be re-routed, and bypassed trail segments will be rehabilitated, as discussed in the previous section of this document.

Environmentally Preferred Alternative

The Preferred Alternative to realign the Emory Peak Trail is the environmentally preferred alternative. The environmentally preferred alternative was determined by applying the six criteria outlined in §101 of NEPA. According to these criteria, the environmentally preferred alternative should 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; 2) assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings; 3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences; 4) preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice; 5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The No Action alternative does not meet any of the above six criteria, because it retains a trail that does not meet safety standards or resource protection standards, and it does not adequately provide for public enjoyment of the area's resources. This alternative causes ongoing impacts to significant Park resources such as natural and cultural resources.

Therefore, the Preferred Alternative to realign the trail is the environmentally preferred alternative, because it facilitates the best balance between public enjoyment of resources and protection and preservation of those resources. The Preferred Alternative addresses most components of these six evaluation criteria. The Preferred Alternative, which will realign a segment of the Emory Peak Trail, will provide a safe and serviceable trail that enhances visitor experience while minimizing environmental impacts to the greatest extent possible. Because the new trail alignment will follow sustainable design standards, it will be used by future generations for the enjoyment of Park resources. Rehabilitating the existing trail alignment will also mitigate ongoing resource impacts and thereby facilitate restoration of natural processes.

Why the Preferred Alternative Will Not Have a Significant Effect on the Human Environment

In the EA, the NPS took a “hard look” at the potential effects of the Preferred Alternative by considering the direct, indirect, and cumulative impacts (effects) of the Preferred Alternative on the environment, along with connected, cumulative and similar actions. Impacts were described in terms of context and duration. The context or extent of the impact was described as “site specific” (impacts would be restricted to the project footprint and the use corridor around the project footprint, which is defined for this project as approximately six feet on either side of both the new trail alignment and the existing trail alignment to be rehabilitated); “local” (in the general project area, which is defined as Emory Peak and adjacent landscape features such as Boot Canyon and the High Chisos Trail System); “Park wide” (including the entire Park); and “regional” (including Brewster County and surrounding counties and communities, including communities across the Rio Grande River in Mexico). The duration of impacts was described as “short-term” (impacts last only during

construction and the resources resume their pre-construction conditions following construction) or “long-term” (impacts last beyond the construction period, and the resources may not resume their pre-construction conditions...).

The intensity and type of impact was described as negligible, minor, moderate, or major, and as beneficial or adverse. The NPS equates “major” effects as “significant” effects. The identification of major effects would trigger the need for an environmental impact statement (EIS). Where the intensity of an impact could be described quantitatively, the numerical data were presented or referenced in the EA. Many impact analyses were qualitative. The use of the four impact intensity levels and their respective impact threshold definitions also provide a “hard look” to NPS decisionmakers, enabling them to evaluate the impacts in an objective fashion. The NPS defines “measurable” impacts as moderate or greater effects. It equates “no measurable effects” as minor or negligible effects. “No measurable effect” is used by the NPS in determining if a categorical exclusion applies or if impact topics may be dismissed from further evaluation in an EA or EIS. The use of “no measurable effect” in this EA pertains to whether the NPS dismisses an impact topic from further evaluation in the EA. The reason the NPS uses “no measurable effect” to determine whether impact topics are dismissed from further evaluation is to concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail. This is required by the Council on Environmental Quality regulations at 40 CFR §1500.1(b).

In the EA, the section entitled “Impact Topics Dismissed from Further Analysis” provides a limited evaluation and explanation as to why some impact topics are not evaluated further in the EA, because the particular resource is not in the analysis area, or there would be no impact or no measurable impact from implementation of the Preferred Alternative. Due to the low intensity of effects, the contribution towards cumulative effects is low. There is no impairment analysis included in the limited evaluations, because the NPS’s threshold for considering whether there could be an impairment is based on major effects.

Impact topics analyzed in the “Environmental Consequences” section of the EA included soils, water resources, special status species, visitor experience and safety, and wilderness values. These topics were analyzed at all context levels – from site specific to regional contexts. The impact analyses in the EA also included a finding on whether or not the actions contained in the alternatives would impair park resources. For all of the park resource topics evaluated in the EA, there were no major effects identified; therefore the impairment findings concluded there would be no impairment from implementation of the Preferred Alternative.

Cumulative impact analyses on park resources from the realignment of trail were projected for the reasonably foreseeable future in the EA. Environmental analyses indicated that implementation of the Preferred Alternative would have no major adverse (significant) impacts on park resources. As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse

The Preferred Alternative will result in direct and indirect moderate, long-term, beneficial effects on soils at the local level, because soil erosion in the general project area will be reduced by rehabilitation and stabilization of the existing trail and by constructing a stable trail surface for the new trail alignment.

The Preferred Alternative will result in indirect, moderate, long-term, beneficial effects on water resources at the local level, because water contamination from soil erosion in the general project area will be reduced by rehabilitation and stabilization of the existing trail and by constructing a stable trail surface for the new trail alignment.

The Preferred Alternative has the potential to have indirect, localized, short-term, negligible, adverse impacts on the federally listed Mexican long-nosed bat (*Leptonycteris nivalis*) from vibrations and/or noise disturbance from blasting that may travel far enough to disturb a known roost of this endangered species. However, these impacts will be mitigated by restrictions on blasting during the bat’s maternity season. The Preferred Alternative has the potential to have indirect, localized, short-term, negligible, adverse impacts on Park-listed sensitive plant species from trampling during construction, but these impacts will

be mitigated by flagging sensitive areas for avoidance. The Preferred Alternative has the potential to have indirect, localized, short-term, negligible, adverse impacts on black bears from trail use of the area by trail crews drawing scavenging bears to the area, but these impacts will be mitigated by education and the use of bear-proof food storage containers. The Preferred Alternative will have the same impacts associated with black bears as the existing trail, which results from use of the area bringing scavenging bears in contact with visitors using the trail. The net effects of the Preferred Alternative on special status species will be direct and indirect, localized, short-term, negligible, and adverse.

The Preferred Alternative has the potential to have direct and indirect beneficial impacts on visitor experience and safety, which will be long-term and localized. Beneficial effects on visitor experience will result from the new trail providing a safer and more enjoyable hiking experience on Emory Peak.

The Preferred Alternative has the potential to have direct and indirect beneficial effects on wilderness values, which will be long-term and localized. Beneficial effects to wilderness values will result from restoring the natural character of the footprint of the existing trail and from constructing the new trail alignment to harmonize more with the natural wilderness character of the area.

Degree of effect on public health or safety

The Preferred Alternative will have a moderate beneficial effect on public health and safety, particularly for the Park's visitors that will regularly use the Emory Peak Trail. Because the existing trail is poorly designed, it is hazardous and difficult for hikers to navigate. There have been multiple trail related injuries attributed to tread degradation, which causes poor footing. On average, visitors report 2-3 injuries a year – typically sprained and broken ankles. The new alignment will minimize many of the current unsafe conditions associated with the existing trail.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

The Preferred Alternative will not impact unique characteristics of the area including historic, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas because these resources do not exist in the project area. The Preferred Alternative will have a beneficial effect on park lands by reducing resource damage associated with the segment of existing trail to be bypassed, which is heavily damaged. The Preferred Alternative will have a beneficial effect on cultural resources by directing visitor use away from an archaeological site that is near the existing trail to be bypassed.

Degree to which effects on the quality of the human environment are likely to be highly controversial

Throughout the environmental process, the proposal to realign the trail was not highly controversial, nor are effects expected to generate future controversy.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks

The effects of realigning the trail are fairly straightforward and do not pose uncertainties. The environmental assessment process has not identified any effects that may involve highly unique or unknown risks.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The Preferred Alternative is not expected to set a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts

Cumulative effects were analyzed in the EA, and no significant cumulative impacts were identified.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

There is one archeological site near the existing trail, which will not be affected by the project, because it will be flagged for avoidance. The archeological site has not been identified as a "historic property" eligible for inclusion in the National Register of Historic Places, by the Park's Archeologist, who made a determination of "no historic properties affected" in consultation with the State Historic Preservation Officer (SHPO). The SHPO concurred with the Park Archeologist's determination.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

A letter from the U.S. Fish and Wildlife Service (USFWS) dated August 31, 2006 requested biological reports from biological field surveys and assessments. The Park responded by sending the requested report on December 13, 2006. On December 15, 2006, the USFWS submitted a finding of "no action" and thereby concluded the informal consultation process, indicating that no further consultation under §7 of the Endangered Species Act was necessary.

Whether the action threatens a violation of Federal, state, or local environmental protection law

The action will not violate any Federal, State, or local environmental protection laws.

Impairment

The National Park Service has determined that implementation of the Preferred Alternative will not constitute an impairment to the resources and values at Big Bend National Park. This conclusion is based on a thorough analysis of the environmental impacts described in the EA, public comments received, relevant scientific studies, and the professional judgment of the decision maker guided by the direction in the *2006 NPS Management Policies* (NPS 2006). Although the project has some adverse impacts, in all cases these adverse impacts are the result of actions taken to preserve and restore park resources and values. Overall, implementation of the Preferred Alternative will benefit park resources and values, provide opportunities for their enjoyment, and will not result in their impairment.

Public Involvement

The EA was made available for public review and comment during a 30-day period ending April 11, 2007. To notify the public of this review period, a press release was mailed to stakeholders, interested parties, and newspapers. Copies of the document were made available in local repositories and an electronic copy of the EA was made available on the internet. One copy of the EA was sent to an interested party who requested a hardcopy document. Three commenters responded during this review period. All three commenters were unaffiliated individuals. After reviewing public comments in consideration of the guidance provided in Section 5.5D of the NPS Director's Order #12 (DO-12), and in consultation with Regional technical advisors, the Park developed responses to twelve of the comments received. As per Section 2.12 of the DO-12, written responses to comments received were incorporated into the administrative record in the NPS servicewide "Planning, Environment and Public Comment" online system (PEPC). The responses to comments are found in the *Errata* attached to this document, which completes the Finding of No Significant Impact.

Conclusion

The Preferred Alternative does not constitute an action that normally requires preparation of an Environmental Impact Statement (EIS). The Preferred Alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur will be negligible, minor, or moderate in intensity. There will be no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.

Based on the foregoing, the National Park Service has determined that an EIS is not required for this project and thus will not be prepared.

Approved:

Michael D. Snyder
Director, Intermountain Region, National Park Service

Date

ERRATA

EMORY PEAK TRAIL REALIGNMENT ENVIRONMENTAL ASSESSMENT

BIG BEND NATIONAL PARK

These *errata* sheets, combined with the original environmental assessment and “finding of no significant impact” document, form the complete administrative record of the environmental analysis completed for this project. These errata sheets clarify information in the environmental assessment and provide NPS responses to substantive public comments received during the 30-day public review of the environmental assessment. The clarifications and comment responses in these *errata* sheets do not change the proposed project activities identified and analyzed in the environmental assessment and do not lead to any significant changes in the environmental analysis or determinations made. Comments were received from three individuals during the public review. The following presents substantive comments followed by the NPS response.

Public Comment 1:

Page 14, Alternatives Analyzed, NPS misleads the public by saying "NEPA's implementing regulations (40 CFR 1502.14) require analysis of at least two alternatives ". 40 CFR 1502.14 requires that NPS "Rigorously explore and objectively evaluate all reasonable alternatives" and not just two alternatives as NPS does in this EA. NPS proposes no alternative realignment alternatives and provides no justification that there is only one possible "all reasonable alternatives".

NPS Response to Public Comment 1:

The purpose and need as stated in the EA are to meet the primary objectives of the Park's enabling legislation, which is to provide for recreational park purposes and public enjoyment, as well as to address ongoing damage to Park resources caused by erosion problems on the existing trail. The primary goals and objectives outlined in the EA are to: 1. Improve safety for visitors and staff who use the Emory Peak Trail. 2. Provide a better visitor experience on the Emory Peak Trail. 3. Minimize impacts to park resources. 4. Provide a sustainable design for the trail that would make its long-term maintenance practical.

During January of 2007, an interdisciplinary team of NPS employees, including all program managers in the Science and Resources Division, met for the purpose of developing project alternatives. This meeting resulted in the definition of project objectives, and a list of alternatives that could potentially meet these objectives. Two action alternatives and the No Action Alternative were initially considered for this project. Of these, one of the action alternatives, the alternative to close the Emory Peak Trail, was dismissed from further consideration, because it would not meet the project objectives. Additionally, the Park staff noted that closing the trail would likely be highly controversial, marked by public outcry over losing one of the Park's most popular visitor experiences and park management would not approve the closing of the trail. Also during the meeting, resources staff agreed that the no action alternative would result in ongoing resources damage that was unacceptable. The entire resources staff agreed that the Proposed Action, and that the proposed re-route was thoughtfully planned in such a way that it would minimize resource impacts, and that no other alternative could be identified that would meet project objectives.

Public Comment 2:

It's now more even likely that individuals or groups hiking with full packs (and doing Emory as a side trip on their travel route) would want to cache packs and food while going up Emory. Is there a plan for this?

NPS Response to Public Comment 2:

The importance of providing bear proof containers in the project area is summarized in the EA, but the addition of new containers was not specifically addressed. During trail work and following the re-route of the trail, Park staff will evaluate visitor use patterns in the area to determine if adding more containers is warranted.

Public Comment 3:

Page 10, NPS should not dismiss cultural resources issue, Archeological Resources, since it admits that an archeological site exists near the trail proposal. There should be a detailed discussion in the EA about how the NPS will mitigate environmental impacts to archeological resources due to this proposal.

NPS Response to Public Comment 3:

The intensity and type of impact was described in the EA as negligible, minor, moderate, or major, and as beneficial or adverse. The NPS defines "measurable" impacts as moderate or greater effects. It equates "no measurable effects" as minor or negligible effects. No measurable effect is used by the NPS in determining if a categorical exclusion applies or if impact topics may be dismissed from further evaluation in an EA or EIS. The use of "no measurable effects" in this EA pertains to whether the NPS dismisses an impact topic from further evaluation in the EA. The reason the NPS uses "no measurable effects" to determine whether impact topics are dismissed from further evaluation is to concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail. This is required by the Council on Environmental Quality regulations at 40 CFR §1500.1(b) "Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail." The EA describes issues and impact topics that were assessed to a limited extent before being dismissed from further evaluation. CEQ requires that NEPA documents be "concise, clear, and to the point." They must "emphasize real environmental issues and alternatives" and be useful to the decision-maker and the public (§1500.2).

Public Comment 4:

Pages 6-13, 19-20, 26-41, "use terms like moderate, minor", "slight, negligible", "greatly increase", "few", "small", "readily apparent", "substantially change", "large", "relatively local", "substantial consequences", "no measurable impacts", "relatively moderate", "Perceptible consequence", "considerable scientific effort", "few individuals", "some long-term consequence", "drastic and permanent consequences", "strong opinion", "slight and likely short-term", "below or at the lowest level of detection", "readily apparent and likely long-term", "not likely be aware of the effects, express an opinion", "little or no disruption", and harmonize more with the natural wilderness character".

NPS Response to Public Comment 4:

The NPS included both quantitative and qualitative analysis of impacts. The NPS performed a quantitative analysis where it had the specific information to do so. Examples of quantitative analysis performed in the EA included definitions of context, duration, and intensity of impacts. For instance, context was defined as "the area or location in which the impact would occur;" and it included definitions of "Site Specific: Impacts would be restricted to the project footprint and the use corridor..., which is defined...as approximately six feet on either side of the new [and

existing] trail alignment...[,]Local: ...defined as Emory Peak and adjacent landscape features such as Boot Canyon and the High Chisos Trail System...[,]Park Wide: ...the entire Park...[,]Regional: ...Brewster County and surrounding counties...."

Quantitative data were also summarized or referenced in the EA, such as existing trail measurements, new trail design standards, soils data, visitor use data, and biological survey data. Where specific information was lacking to perform a quantitative analysis, the NPS believes that its qualitative analysis is adequate. NPS technical specialists (biologists, geologists, hydrologist, archeologist, and NEPA and Wilderness Act specialists), as well as consulting agencies, either prepared or were consulted during the preparation of this EA, and provided input on the qualitative assessment of effects presented in the EA.

The assessment of impacts using "best professional judgment" is an acceptable methodology, and is based on the judgment of the NPS technical specialists who were consulted during the preparation of the EA and who possess the knowledge and skill to assess the effects of the proposal.

The NPS has written the EA in plain language the general public can understand (40 CFR §1502.8). Words used are intended to be understandable using standard dictionary definitions. Only jargon, technical terms, and acronyms are defined in the EA.

Public Comment 5:

The same problem (lack of quantification of methodology assessment terms) exists in this EA. NPS must ensure that it provides quantitative descriptions of impacts and not "arbitrary and capricious" qualitative descriptions in this EA.

NPS Response to Public Comment 5:

Please refer to the response to "Public Comment 4" above.

Public Comment 6:

One issue that is not discussed is how the NPS will ensure that the proposed Emory Peak Trail re-routing will not result in environmental damage like the present route. The NPS admits that for decades (page 2, fourth paragraph) there have been problems with this trail. The question is, "Why did NPS allow it to get so bad before doing something?"

This question needs to be answered in the EA. What monitoring program will be set-up to ensure that gradual, unacceptable, environmental degradation does not occur? How will the monitoring program be different than the one that failed for the present trail? If the monitoring program did not fail then how will the administrative program be changed so it does not fail in the future? These are all relevant and necessary questions that must be addressed in the EA.

NPS Response to Public Comment 6:

NPS inherited the existing trail alignment - an informal social path, used by ranchers and stock then by hikers. These informal trails present long-term challenges, because they are poorly formed surfaces rather than planned, thoughtfully designed trails. NPS has done an extremely large amount of work to mitigate the erosion of the existing trail over the years. However, little of it has held due to such extreme trail gradients and conditions. The Park has worked diligently to secure funds to correct the backlog maintenance problem on Emory Peak, and therefore NPS is addressing the issue in the timeliest manner that is economically and logistically feasible.

The new alignment would be constructed using established standards for sustainable design.

These standards have been developed from a broad range of studies over decades by trail maintenance and engineering specialists. The Park uses several trail construction guides, as referenced in the EA. The Park's Trails Supervisor has decades of personal trail maintenance and construction experience in various national parks. The Park enlisted the help of a well known and respected team of instructors from the Mott/Albright Training Center to assist in the field layout of the proposed new trail alignment.

Because the new trail alignment will be a sustainable design, the Park does not expect resource degradation beyond that described in the EA. However, the Park will track resource conditions in the area for decades to come as part of their ongoing studies. Additionally, the Park's Science and Resources professionals conducted surveys of the project area in evaluating the Proposed Action. That data gathering as well as decades of ongoing studies in the project area have included quantitative data as well as dated photographs of the area – all of which provide baseline information against which the Park may compare future conditions to determine if any unexpected resource degradation has occurred.

Public Comment 7:

NPS does not state whether it will use rolling dips for erosion control. This form of erosion control structure should be used versus water bars which are considered a less than effective alternative and in some cases are considered to be an obsolete alternative for erosion control.

NPS Response to Public Comment 7:

The Park's Trails Crew will be using rolling drain dips as well as other erosion control techniques such as outsloping, use of inside drains off of switchbacks at break in grade, and water bars, where appropriate. It is worth noting that the use of rolling drain dips rather than water bars has become popular in the general literature lately as a result of this construction method being promoted by the International Mountain Bike Association, because bicyclists have difficulty negotiating water bars, and rolling dips allow bicyclists to ride much faster and “catch air” off drain dips. Mountain biking, however, is not permitted on the Emory Peak Trail, and therefore rolling dips would only be used where they are deemed to be the preferred method of erosion control. All of the methods of erosion control that will be used by the Park's Trails Crew are consistent with the trails construction and maintenance guidance outlined in the 2006 NPS Management Policies.

Public Comment 8:

NPS fails to include the letters submitted during scoping from the public. These letters are of interest to the public and decision-makers as they review, comment on, and understand this proposal. These letters should be placed in the EA.

NPS Response to Public Comment 8:

Director's Order-12, Conservation Planning, Environmental Impact Analysis and Decision-Making, is NPS guidance on complying with the National Environmental Policy Act. From section 5.4 G of DO-12 "Any scoping or other public involvement efforts should also be detailed, and a brief summary of major issues should be included." Such summaries are provided on pages 4, 10, 19, 23, 31, and 42 of the EA.

Public Comment 9:

Page 12, NPS should not dismiss the soundscape issue since trail work will cause disturbance to wildlife and humans. There should be a detailed discussion in the EA about how the NPS will mitigate environmental impacts to the soundscape due to this proposal.

NPS Response to Public Comment 9:

Please refer to the response for CR4000 above.

Public Comment 2:

Pages 8-9, NPS should not dismiss the vegetation issue, in particular the non-native invasive species (NNIS) issue. There should be a detailed discussion in the EA about how the NPS will ensure that equipment and people do not introduce accidentally NNIS.

NPS Response to Public Comment 10:

Please refer to the response for “Public Comment 3” above.

Public Comment 11:

Page 9, NPS should not dismiss the wildlife issue since trail work will cause wildlife to leave the area. There should be a detailed discussion in the EA about how the NPS will mitigate environmental impacts to wildlife due to this proposal.

NPS Response to Public Comment 11:

Please refer to the response for “Public Comment 3” above.

Public Comment 12:

NPS states that current trail use is very height (page 37, “ ...one of the Park's most popular visitor attractions – the Emory Peak Trail”). NPS appears to put visitor use before protection of "Wilderness character" which is not legal under the 1964 Wilderness Act".

NPS admits that erosion has been occurring for several decades from the Emory Peak Trail and apparently did little to stop it. Even if the trail were placed poorly, high visitor use will cause accelerated trail erosion. NPS does not discuss how it will ensure that future trail use will not exacerbate erosion of the proposed trail. NPS must address this problem in the EA. This is particularly true since NPS must treat this area as Wilderness since it has been recommended by NPS as Wilderness and the U.S. Congress has not acted on that recommendation.

NPS Response to Public Comment 12:

Visitor use of the area is consistent with the spirit of the Wilderness Act of 1964 (16 U.S.C. 1131 et seq), which states that wilderness areas are set aside “for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness.” The design outlined in the EA strikes the best balance between visitor use and enjoyment of the area and resource conservation goals. Therefore, the Proposed Action would have a beneficial effect on the wilderness character of the project area, because the new trail alignment would be designed to harmonize with the natural wilderness character. The rehabilitation of the existing trail would correct erosion conditions that disrupt natural processes and cause degradation of the overall wilderness character in the footprint of the existing trail and adjacent land.

Mitigation measures to protect wilderness values have been outlined in the EA, and they include but are not limited to, using hand tools, minimal use of trail maintenance and erosion control features, and use of natural materials to minimize the appearance of human-made landscape features. Mitigation measures for wilderness may be found in the EA on pages 20, 40, and 41; and they are also incorporated into the project description, which outlines plans to implement the Proposed Action.